In the Claims:

Claims 1-18 (CANCELLED)

19. (ORIGINAL) An ignition module used for a vehicle ignition system comprising:

a housing adapted for mounting on a distributor;

a thick film substrate contained within the housing;

a microprocessor mounted on the thick film substrate and operative for receiving at least a spark output (SPOUT) signal from an electronic control assembly (ECA) used on the vehicle and generating a control signal to an ignition coil and switching ON and OFF the primary current therein; and

a temperature sensing circuit operative with the microprocessor such that the microprocessor reduces the duty cycle as applied to the control signal generated to the ignition coil and reduces the generated heat when a temperature threshold for the ignition module has been exceeded.

20. (ORIGINAL) An ignition module according to claim 19 wherein the microprocessor is operative for reducing the duty cycle from about 5% to about 15%.

21. (ORIGINAL) An ignition module according to claim 19 wherein the temperature sensing circuit comprises a temperature sensing resistor and reference diode for establishing a temperature control signal to the microprocessor that is linear with temperature change in the ignition module.

22. (PREVIOUSLY PRESENTED) An ignition module according to claim 19 and further comprising a circuit for reducing vehicle voltage that is 14 to about 15 volts to about 5 volts for supplying power to the microprocessor.

23. (PREVIOUSLY PRESENTED) An ignition module according to claim 19 and further comprising a signal input for receiving a profile ignition pickup (PIP) signal from a Hall Effect stator assembly.

24. (PREVIOUSLY PRESENTED) An ignition module according to claim 23 wherein the microprocessor is operative for comparing the spark output (SPOUT) signal with the profile ignition pickup (PIP) signal to determine a timing interval for switching ON and OFF the primary current within the ignition coil.

25. (ORIGINAL) An ignition module according to claim 23 wherein the microprocessor is operative for determining when an engine threshold has been exceeded by processing engine operating parameters as determined by at least the spark output (SPOUT) and/or profile ignition pickup (PIP) signals generated to the ignition module.

26. (ORIGINAL) An ignition module according to claim 19 wherein the microprocessor is operative for reducing the duty cycle after the temperature threshold has been exceeded and when the engine RPM of the vehicle has dropped below a predetermined number.

Claims 27-47 (CANCELLED)

48. (ORIGINAL) An ignition module used for a vehicle ignition system comprising:

a thick film substrate;

a microprocessor mounted on the thick film substrate and operative for receiving a signal from an electronic control assembly (ECA) used on the vehicle and generating a control signal to an ignition coil and switching ON and OFF the primary current therein when a temperature threshold for the ignition module has been exceeded.

49. (ORIGINAL) An ignition module according to claim 48 wherein the microprocessor is operative for reducing the duty cycle as applied to the control signal generated to the ignition coil.

50. (ORIGINAL) An ignition module according to claim 48 and further comprising a temperature sensing circuit operative with the microprocessor such that the microprocessor reduces the duty cycle and reduces generated heat when the temperature sensing circuit indicates a temperature threshold has been reached.

51. (ORIGINAL) An ignition module according to claim 50 wherein the temperature sensing circuit comprises a temperature sensing resistor and reference diode for establishing a temperature control signal to the

microprocessor that is linear with temperature change in the ignition module.

52. (ORIGINAL) An ignition module according to claim 48 wherein the microprocessor is operative for comparing a spark output (SPOUT) signal with a profile ignition pickup (PIP) signal to determine a timing interval for switching ON and OFF the primary current within the ignition coil.

53. (ORIGINAL) An ignition module according to claim 48 wherein the microprocessor is operative for determining when an engine threshold has been exceeded by processing engine operating parameters as determined by at least a spark output (SPOUT) and/or profile ignition pickup (PIP) signals generated to the ignition module.

54. (ORIGINAL) An ignition module according to claim 48 wherein the microprocessor is operative for reducing the duty cycle after the temperature threshold has been exceeded and when the engine RPM of the vehicle has dropped below a predetermined number.

55. (ORIGINAL) An ignition module used for a vehicle ignition system comprising:

a thick film substrate contained within the housing;

a microprocessor mounted on the thick film substrate and operative for receiving at least a signal from an electronic control assembly (ECA) used on the vehicle and generating a control signal to an ignition coil and reducing the duty cycle as applied to the control signal generated to the ignition

coil and reducing the generated heat when a temperature threshold for the ignition module has been exceeded.

56. (ORIGINAL) An ignition module according to claim 55 wherein the microprocessor is operative for reducing the duty cycle from about 5% to about 15%.

57. (ORIGINAL) An ignition module according to claim 55 and further comprising a temperature sensing circuit operative with the microprocessor for indicating when a temperature threshold has been reached.

58. (ORIGINAL) An ignition module according to claim 57 wherein the temperature sensing circuit comprises a temperature sensing resistor and reference diode for establishing a temperature control signal to the microprocessor that is linear with temperature change in the ignition module.

59. (ORIGINAL) An ignition module according to claim 55 wherein the microprocessor is operative for comparing a spark output (SPOUT) signal with a profile ignition pickup (PIP) signal to determine a timing interval for switching ON and OFF the primary current within the ignition coil.

60. (ORIGINAL) An ignition module according to claim 58 wherein the microprocessor is operative for determining when an engine threshold has been exceeded by processing engine operating parameters as determined by at least a spark output

(SPOUT) and/or profile ignition pickup (PIP) signals generated to the ignition module.

61. (ORIGINAL) An ignition module according to claim 55 wherein the microprocessor is operative for reducing the duty cycle after a temperature threshold has been exceeded and when the engine RPM of the vehicle has dropped below a predetermined number.